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Besides the above distinctly professional courses, the Institute offers scientific courses of a less technical character, designed to give students a preparation for business callings. A four years' course in biology, chemistry, and physics has been established, as preparatory to the professional study of medicine.

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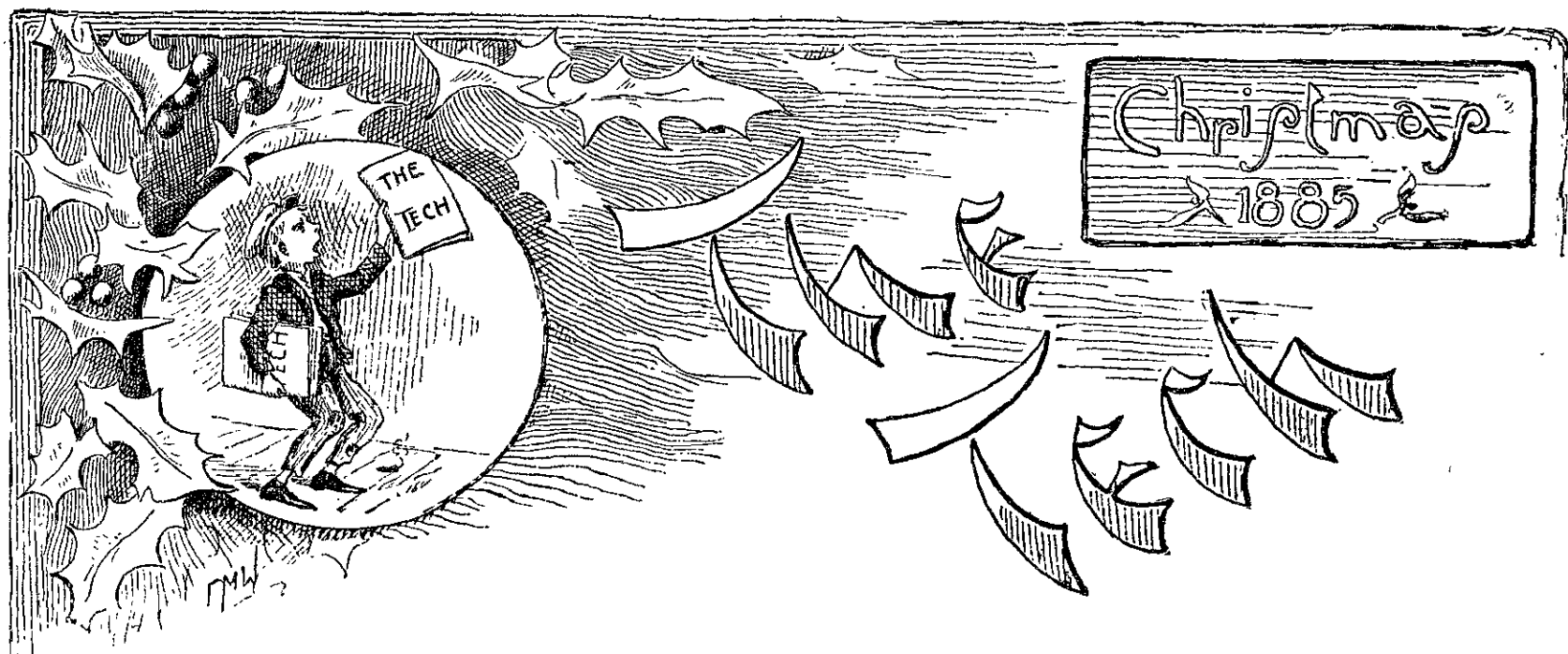
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VOL. V.

BOSTON, DEC. 16, 1885.

NO. 5.

## THE TECH.

Published on alternate Wednesdays, during the school year, by the students of the Massachusetts Institute of Technology.

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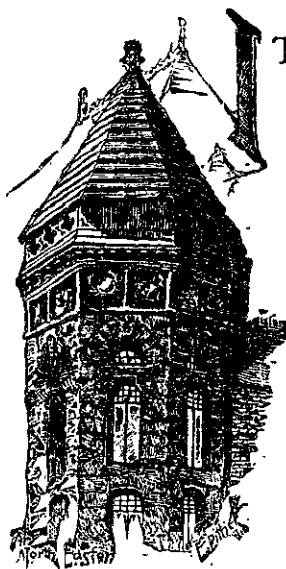
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It was with feelings of pleasure closely approaching hilarity, that the Editor of "Clippings," while perusing, some months ago, the last copy of the almanac, discovered that Christmas this year fell on a Friday. "For," quoth he, "the Faculty will have to give us Saturday as a holiday, also." His expectation has not been disappointed, and the length of our Christmas vacation is to be doubled, this year, at least. Hence, knowing that they will be free from

thoughts of physics, and mathematics, and such evils on the morrow, THE TECH can heartily wish its friends a merry Christmas.

We hope that the Faculty will have a pleasant Christmas, and, finding how good it is to have a little extra vacation at this time, will try it again next year.

THE annual catalogue for '85, '86 has been out since a week. We have to chronicle but few changes in the present volume from that of last year. The total number of students this year is 730—an increase of 24; 609 of these are in the School of Industrial Science, and in the same school are 62 regular officers of instruction, and 6 lecturers.

In the requirements for admission, we notice that candidates are henceforth to be allowed to divide their entrance examinations, so as to take some, one year, and the rest in the following. Candidates not prepared in French may substitute an equivalent in German. They are also to be allowed an examination in solid geometry, and, if successful, will be excused from studying that subject after admission. The announcement is made that, after September, 1886, no student will be admitted to the Institute who is under seventeen years of age.

In the corps of instruction, the most noteworthy change is in the chemical department,



Prof. T. M. Drown having taken Prof. Wing's place in the chair of Analytical Chemistry.

An interesting addition to the catalogue is a list of the titles of theses of the graduates of the class of the preceding year. The new catalogue is a volume of 156 pages, and contains plans of the mining, mechanical, and chemical laboratories.

NOW that we have had time to think and talk over the foot-ball season just past, let us see what the game can do for us, and what we can do for it, in another year. The game of foot-ball is now established in the front ranks of college sports. Many have been the cries against it as rough and barbarous, encouraging the *animal* in its devotees, and exposing its players to physical dangers of the most serious character. To these condemning cries, Mr. Walter Camp, than whom, on account of his long experience as a player, and his thorough understanding of the rules, and their workings, no one is better able to judge, writes: "I am sadly aware that the present tendency is to emasculate all games and exercise, and frown on strength and courage as old-fashioned things,—relics of the dark ages; to teach our youth that all games requiring these qualities are brutal and degrading. . . . It takes a brave man to play foot-ball constantly, and I believe it is well to have some game where courage is needed. There is little enough of it in the community."

That this "good and manly game" ought to and will become *the* game here, we have no doubt. The arrangement of terms at the Institute is such as to give a greater chance for success in foot-ball than in any other college-sport. The school-year closes too early in the season, and preparation for examinations requires too much time to give the opportunity for success in base-ball that we have in foot-ball. The formation of our league of colleges of recognized standing, offers the needed incentive. We have a large body of students from which to select a team, and we can secure, permanently, the suitable and convenient grounds, if

the students will take the interest in it that students ought to take. That we struggle under disadvantages ought only to stimulate us to greater efforts. By carrying out the measures that the Foot-ball Association has already taken, our team can get into practice nearly as soon as those of the other colleges. By careful economy of time, and due consideration from the Faculty, school-work need not suffer.

The way in which the Institute students may be benefited is for all to take hold. This is the only way we can get the Union Grounds as a place of exercise for all. Moreover, it always does a man good to lend a helping hand in any such general interest, even though he doesn't take any active part. With this interest, "Champions in 1886," will not sound too high for us. Anything lower than first place will not content us, as we know from this year's experience, when we came as near first as possible without getting there.

IT is extremely unfortunate that the class of '89 should begin its career at the Institute by quarreling about the formation of a class society. As the class is generally in favor of such a society, and the only question was regarding the expediency of its immediate organization, it would seem those interested might come to some sort of amicable agreement without a course of disputation and mutual opposition calculated to bring about the highly discreditable result of dividing the class into hostile factions.

WE have to ask the question — why is not the Athletic Club better supported? The annual assessment has been reduced, so that the membership may be increased, and that the Club may represent the whole Institute and not a few students only, as heretofore. Notwithstanding this the membership this year is even smaller than last. In order to be successful it must have the support of all. This is one of the organizations which has done the Institute most credit, and it should not be allowed to die.

## But One!

Most beautiful and graceful of them all,  
 She waltzed around the hall.  
 My ravished mind forgot  
 That, 'mid the brilliant throng which it saw not,  
 The many fair  
 Assembled there,  
 Though brightest, she could only be  
 But one!  
 (Was love begun?)

Now, much to my regret, I often find  
 She's not at all inclined  
 To list to what I say,  
 Or act one moment in a *taking* way.  
 For other fair  
 I'd little care  
 If, haply, *she* could only be  
 But *won*!  
 (Excuse the pun.)

L.

## The Cruise of the Arethusa.

FIRST PAPER.—THE VOYAGE TO NEWFOUNDLAND.

SO many persons the Gulf of St. Lawrence is a region of storms, and the coast of Newfoundland a land of fogs, few being aware of the great variety and beauty of the scenery and the many attractions the country presents to the tourist. Our party, numbering seven persons, left Annisquam, June 2d, for a three months' cruise along the west coast of Newfoundland. The yacht was schooner-rigged, and of about seventeen tons burden. Our course was laid for Cape Sable, the southernmost point of Nova Scotia. The start was most auspicious, the breeze being favorable; but everything must have some end, and our breeze was no exception. Along late in the afternoon we were overtaken by a lively squall, which compelled us to modify our course considerably. The next day we were more favored, and made good progress; and on the third day out we made Cape Sable. The weather being somewhat threatening, and having no desire to repeat the first night's experience, it was decided to come to anchor in Negro Harbor, some fifteen miles distant from Cape Sable. Here we remained not only all of that night, but also the following day. There is a small settlement, but nothing of special interest to the visitor.

Early next morning we started on up the coast. The wind was capricious, and seemed to come from almost any direction save the desired one, so that when we ran into Liverpool Harbor that night we had only forty miles to our credit as the day's run. Sunday evening found us in Halifax. The city is situated on the side of a hill, the summit of which is crowned by the citadel. Halifax derives its importance from the government stations there. The harbor is well fortified, the banks on both sides being dotted with forts, signal stations, and redoubts. Just before reaching the harbor proper McNab's Island is passed. On this island is a fort, which faces down the harbor, and could very effectually prevent any vessel from passing. The navy-yard is probably the chief station for the British men-of-war on this side. At the time we were there the officers of the Garnet had just been tried for letting Paul Boyton place the dummy torpedo under her bow while she was stationed in New York.

Our course up the coast from Halifax lay inside an almost continuous line of ledges, partly exposed and partly covered, but the water was so shallow that it caused the waves to break, forming a line of most magnificent surf many miles in length.

We were destined to be favored with our full share of storms, as we had another squall on this afternoon. However, we were soon able to make Isaac's Harbor safely. This harbor is distant some ninety miles from Halifax. The settlement is small, the chief industries being the lobster-canning factory, and the gold-mine, which, by the way, has since been obliged to close up, on account of the failure of the company. While we were sitting on the deck in the evening, we were greeted with "Halloo, Technology!" coming from a small boat astern. Much surprised we answered, and asked who the speaker was. It was an ex-Institute man, who had recognized us by the monograms we wore on our caps. He came on board, looked the yacht over, and then extended us an invitation to come ashore and inspect the mine. We accepted his invitation and went ashore, where



we met the foreman, who showed us every courtesy, and enabled us to see the mine in its fullest detail.

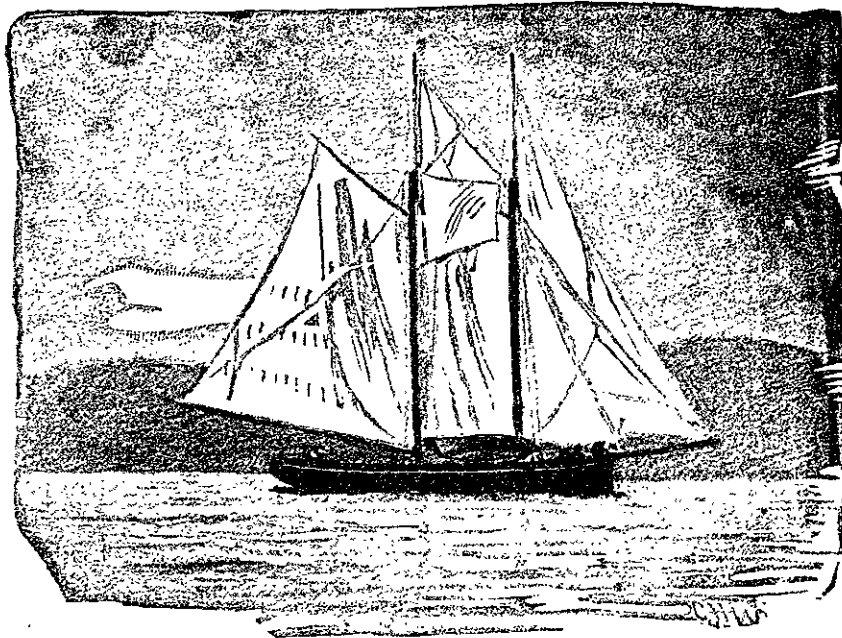
By the next morning the wind had abated sufficiently to allow us to continue our journey, Canso being the objective point. We reached that place after a run of about seven hours, nothing more serious than the breaking of the fore-gaff happening.

Canso is quite a center for fishing-vessels, both as a harbor and as a place for supplies. Like most of the places along this coast, Canso has a lobster-canning establishment, and also a fertilizer factory.

The reigning sensation of the month of June there was the opening of a skating-rink; unfortunately limited time prevented our visiting the place.

Canso is situated on the southern side of Chedabucto Bay, across which our course lay, in order to reach the Strait of Canso. It required about a mile of "white-ash breeze" to get fairly out of the harbor, but once in the bay we had a fair breeze, and soon made the entrance of the strait. The Strait of Canso is about twenty-five miles long, and varies in width from one to two miles. The tide runs from five to seven miles an hour through the strait, and with the aid of this tide a fore-and-aft schooner can beat through, if the wind does not blow too hard. The strait much resembles a large river; on one side is Cape Breton Island, and on the other the shore of Nova Scotia. Along in the afternoon we reached Port Hawkesbury. While beating into Canso our center-board had been somewhat injured, and we were obliged to go on to the marine railway to have the damage

repaired. This caused a delay of two days, and gave us ample opportunity to see the place and the surrounding country. Port Hawkesbury is a place of four or five hundred inhabitants. It contains several stores, and does a considerable business in fitting out fishing-vessels with supplies. It is the terminus of a line of steamers from Boston, while Port Mulgrave, directly opposite, is connected with Halifax by rail. At Hawkesbury is a marine railway, which appeared to be in great demand, judging from the number of vessels awaiting repairs. From Hawkesbury to the gulf, the scenery along the shores of the strait is finer than from the entrance to that place, being far more picturesque.



THE ARETHUSA.

Port Hastings, formerly known as Plaster Cove, is probably the prettiest spot in the strait. The town is situated on the side of the cliffs, and very much looks as if it was just about to slide down into the sea. Opposite Port Hastings, and somewhat nearer the gulf, is Cape Porcupine. It is a magnificent headland over six hundred feet high, and commanding a fine view of the entire strait.

The damage to our center-board having been satisfactorily repaired, and having got our pilot, we left Hawkesbury early Sunday morning for Newfoundland. We had a very fair breeze for getting out of the strait, but once fairly outside we were becalmed some time; however, by ten o'clock in the morning we were going along as well as could be desired, our log showing eight and nine knots an hour.

The northern shore of Cape Breton Island is extremely picturesque, but exceedingly desolate and wild. The cliffs are about twelve hundred feet high, and to the eye present an almost un-

broken line, save where here and there some stream has cut its way to the gulf. To the sailors, the northern coast of the island is not a pleasant one in a storm, as there are only two or three harbors in a distance of a hundred miles, and they are not safe in a heavy blow.

By eight p. m. we had come abreast of Cape North. A couple of hours later we had a storm, of such severity that we were obliged to run under bare poles the greater part of the night.

Early next morning we ran into a dense fog, for which the southern part of the Gulf of St. Lawrence is noted. About eight o'clock we sighted Cape Anguille. The morning was cold and disagreeable, and as we sat on deck, dressed in our heaviest clothes, and looked off at the snow on the mountains, it required a long stretch of the imagination to believe it to be the middle of June, instead of the middle of December. By noon our breeze had entirely died out, though we still had the fog. That night was warm and sultry, and the phosphorescence on the water was especially fine. Each wave appeared as if with a golden crest, and wherever there was a school of fish, the sea appeared as if of molten gold. The next day dawned as foggy and disagreeable as the preceding one had been, and it was two o'clock in the afternoon before we made any progress whatever. By six o'clock we had made the entrance of Port au Port Bay, a distance of about twenty miles. A little later the fog suddenly lifted. On our left was Long Point, narrow, sandy, and low, stretching away to the south; on our right was a rocky shore, sixteen hundred feet high, rising most abruptly from the water, and with its ravines filled with snow—the whole seeming grander by comparison with the low land about it. We now had a beat of fourteen miles nearly dead to windward, and it was ten o'clock before we came to anchor at the head of the bay. The bay is divided into two parts; so Wednesday morning, finding no houses in the western portion, we went to the other side, where we found "Professor," who had preceded us. It had taken us two weeks to a day to reach our first port in Newfoundland. B.

### Shadows.

We were standing at the bow-window,  
Watching the sunset's last after-glow;  
While the gray of the evening descended  
O'er the fields covered white with the snow.

A door 'cross the corridor opened,  
And as the light shone through the hall,  
As we kissed in the bow-window, they  
Saw shadows that kissed on the wall.

A. R.

### Ine at Rising.

A HUNDRED torches flared high at the feast that lay in the hall of the Castle Rising, and more than thrice that number of stout yeomen sat before the loaded tables. In the mighty fireplace the yule-log leapt into flame, and cast a trembling glare upon the revel; huge flagons caught the sparkle here and there, and glowed as with the warmth of the ale within. Many a venison pasty had met its doom that night, and many a fresh cask of ale had bubbled forth its contents in a sparkling stream, and given cheer to manly hearts; the boar's head had been brought in, and disappeared amid the heightened festivity. Not a few of the jolly yoemen had begun to feel the somniferous effects of the good food and drink of the season, and lay stretched upon the floor, behind their cross-legged stools, their jerkins loosened for easier breathing, sleeping heavily; but their concordant respiration scarcely interrupted the wild abandon of the banquet, which was only now and then disturbed by a louder bellow from some lusty throat. Laughter, and jest, and snatches of rude song were bandied from side to side of the long oaken tables and from one distant end to the other. Redder and redder grew the shining faces of the revelers, more boisterous waxed their merriment; and still the brown ale flowed.

But from the dais there looked upon the riotous company one gloomy countenance. The stern old Dane, the master of these halls since a score of yule-logs had flickered in this Castle of Rising, was wont to lead in gaiety, and jests at yule-tide sallied from his caustic tongue as his own brave seamen had poured over the

sides of his war-ships years before, only more dauntless for opposition; but to-night he sat in silent, gaunt, and non-committal gloom. His great, red beard was roughened round his face like the burning gleam of a dying sunset over a jagged mountain, and his gray eyes twinkled coldly from beneath his brows like stars between the trees in winter. Cold and haughty he sat there on his dais, eating little in this time of banqueting, but drinking deep, as if there were some trouble he would forget. A favored servant, pressing some special delicacy, was repulsed with a gesture that might signify disgust or impatience. The wind that lashed the forest into agony, and swept in gusts through the banquet-hall, undeterred by rudely closed window slits, caused the lord of the castle to turn uneasily in his seat with a foreboding which he could not throw off.

A snatch of song reminded him of the contest that was to decide the fate of his daughter; her hand was to be the guerdon of him who should most excel in minstrelsy. The Dane beckoned to his favorite servant, and said: "Bid thy mistress come hither with my daughter Ethel; bid her appear as doth beseem the wife of Harold of Jutland and of Rising; pause not, but fetch hither the harp with the golden strings."

A partial silence fell upon the crowd of yeomanry, and here and there an aspirant furtively collected himself, and tried to quell the flutter of diffidence that almost made him sick, at thought of standing alone in that company and striving for his lady's hand. A deeper hush fell through the hall when, resplendent in her maidenhood, there entered, leaning upon her mother's shoulder, a fair young girl—the prize to be bestowed upon the sweetest singer. Many a heart beat faster when he saw the shy blush that surmounted those fair cheeks, beneath the gaze of so many who were desirous to possess them; and a gentle murmur of expectation rose, trembled, died, before an old man advanced, and, as his right, took down the noble harp that was this night to serve the muse in fatal contest. For a moment the aged trouba-

dour let his subtle fingers stray over the responsive strings, as if to call to mind once more the time when he, too, might have entered a contest like to-night's; then, half sorrowfully, he gave the instrument into the hands of the ready suitors. Sweet singer followed singer in ever loftier strains, until it seemed a miracle if justice could single from the trial one who should deserve the best. One sang of love, one sang of war, another of the chase; one jester sang the pleasures of the table, and one, more learned than the rest, sang even of the joys of knowledge; each, as his heart prompted, sang; some joyfully, for their hope was high—some in sorrow, for despair lay gloomy in their souls.

And Ethel? She felt her tender heart grow heavy, and a dull ache made her throat throb, for she was fancy-free. Yet she was interested in the contest, and as each new singer grasped the harp, she asked herself, "Is this he?" and her throat throbbed harder when he sang well, for that made it more possible that it was he; still, if he sang a passage poorly, she felt sorry for the poor wretch for whom there was no longer any chance, and her look of anxious pity never failed to spur the lagging minstrel to his most strenuous exertions.

And now the turn of the last contestant had arrived. He was a stranger to the company, and none could tell whence he had come. In silence, and with a commanding dignity, he had made his way forward among the enthusiastic crowd of the Dane's followers, and now stood calmly waiting for the applause awarded to his predecessor to die away. The mighty breadth of his shoulders loomed up before the admiring eyes of men who knew better, perhaps, how to appreciate the magnificent animal than the glorious singer. His harp rested almost carelessly upon his breast, and a hand, powerful, but with exquisitely delicate fingertips, lay upon strings that seemed to long to respond to their master-touch. All eyes were bent upon his kingly form, and, with a more definite trouble than heretofore, the Dane gazed into the calm, firm countenance of this

unknown minstrel. No word had yet been spoken by the stranger; and, in anticipation of the next epic, the previous applause soon died away into such complete silence that the moaning of the wind in the forest was heard in the thick-walled banquet-room.

Before the listeners were aware, the stranger had begun to sound his harp. So subtly had he taken advantage of the surging of the wind, that what was wind and what was harp it was impossible to distinguish. Then, from the minor, wailing key of the wind, the player passed on into resounding major chords that had a magic power of rousing the souls of his hearers; and soon, as subtly as he had used the prelude of the wind, the stranger wove his voice into inextricable harmony with the harp. With a strongly-sustained movement, but one exquisitely modulated to his theme, he seemed to take his hearers into the actual presence of the events he sung; it was not to them as if he sung, but as if they, themselves, were the actors of the scenes he painted. He told of a happy home; a noble father, commanding, and obeyed, but claiming obedience only from those who loved him; a beautiful, loving matron, who gathered to her knees her children, and loved them most when they most resembled their father. He told of the happy life the loving family led; the freedom from poverty and want, the strength and honor of the men, the purity and beauty of the women, who surrounded, and drew their sustenance from, the noble head; and, in their turn gave him their willing allegiance. Then, in a grim minor chord, he told of strangers who broke the happiness of that pure home, and scattered to the winds the hopes and aspirations of its members; he told how, like a wave of the sea driven before a great wind, the strangers had come upon the smiling fields and swept away the ripening harvests, scattered the followers of the lord of the domain, and driven the defenders of the home to ignominious slaughter. The brave resistance of the victims had rendered them up to the inevitable destruction. The men of the household had been extirpated, the women torn from their children, and forced into

menial services to their new and arrogant masters. The lord of the castle had been vindictively butchered, his children imprisoned, his wife forced into a new marriage with the leader of the conquest while her husband's blood had scarcely ceased to pour from his stabbed heart.

Then the singer told, in sad and melancholy strains, of the three boys who had been imprisoned in the dank donjons of the castle which was by right their own; how the two elder children languished in the murky atmosphere of the foul, slimy cell in which they were confined, and how, at last, victims to their conquerors' cruelty, they died; how, at their burial in the same cell where they had dragged out their lives for five weary years, the boy who yet clung to his horrid life, vowed that he would live till he had wreaked his vengeance upon the murderer of his father and his brothers, the destroyer of his home, the dishonor of his mother. He sung of the boy's weary waiting for an opportunity to escape from the loathsome prison, his soul-extinguishing desire to breathe once more the air of heaven, his unconquerable determination to avenge his wrongs. At last the moment came; the prison-door was unwittingly opened to the determined soul within. Then came years of search for the friends of his murdered father,—years of disappointment and vain endeavor in part, but, also, of training and accomplishment. The time had flown in endless action for the realization of his desires; friends had rallied round his standard, hearts had been touched by the tale of the outraged son and brother, abundance had crowned efforts for which the waiter had scarcely dared hope for meagre success. At last all was ready for the blow that had so long been impending.

In a sort of march, solemn, impressive, inevitably approaching, the singer described the approach of vengeance. Though so impassive, the minstrel's delivery of his scathing anathemas upon the wrongers of his hero's family became intensely subjective. With marvelous calmness, in the midst of the wildest interest on the part of his hearers, the stranger subdued all signs of

personal emotion, except that his eyes seemed to vibrate in their sockets in response to the tremendous inner workings of his being; while, at the same time, there was that in his bearing, his delivery, his voice, that told every hearer, unmistakably, that the minstrel was telling the story of his own life.

Unable longer to restrain the passion that had been growing in his breast during the whole recital, the Dane, with a bound like that of a lion upon his defensive prey, rushed upon the stranger, whom he now recognized as his deadly foe—the son in name, as in blood, of that Ine whom he had slain with his own hand; this was the avenger of blood, the wrestler of spoils from unwilling hands. A grim struggle ensued, the followers of the Dane holding back, in haughty pride, from interposing between the two men, whose deadly struggle lent a dignity to combat, while it could not but bring a twinge of pallid horror to the cheeks of even those hardened warriors. The two women, supported by their female servants, gazed, with blanched faces but brave souls, upon the contest, not, now, between minstrels, for the hand of a maiden, but between men, for life and for vengeance.

A wild cry went up from the mother when, after the battle had lasted but a brief space, she saw her son fall beneath the weight of his adversary; but the next moment the younger man had succeeded in getting his opponent on the ground, and—all was over! The sturdy life had been literally crushed out of the mighty Dane by the enormous strength his opponent put forth in his terrible emergency.

Before the death-gasp had rattled in the throat of the Danish leader, the cry of, "An Ine! an Ine!" rang through the hall; and the men who had, silently and unobserved, entered after their commander, while he was absorbing completely the attention of his audience, rapidly surrounded the unarmed, but vigorously resisting Danes, and, not without some bloodshed, reduced them to prisoners.

With an anxious face and a beating heart, Ine of Rising sought his mother when the last ury of the fray was spent, and eagerly said,

"Tell me, this maiden, Ethel, is my sister? She is the daughter of my father? That glance can come from none other!" And, after the horror of that night, she still had strength to answer, "Yes!"

### To the Butterfly.

(Translated from the French.)

Born with the springtime with roses to die,  
To float in a clear sky on wings of the wind,  
To poise on the bosom of budlets enshrined,  
And ravished by perfumes the sunlight and sky—

Shaking thy wings of their powdery mail,  
Like a breath to the arches eternal to sail—  
This thy charmed destiny!

Symbol of man's vague desire,  
Thou dost here, then there, aspire,  
Never quiet or at rest,  
Till, with weary wings, downcast,  
We, unsatisfied, at last  
Fly to heaven to be blest.

w.

### The Difference.

In Carthage, so the story goes,  
The ancient maidens fair  
Once bravely furnished strings for bows,  
By cutting off their hair;  
But time, we know, great changes brings,  
And now they all take care  
To fasten beaux upon their strings  
With fresh supplies of hair.—Anon.

### Technics.

The literal meaning of "*Essen! Fressen! Speisen!*" which headed the announcement of the foot-ball dinner, is: "To eat! To eat like a hog! To keep on eating!"

*Professor* (pointing to diagram): "Chamber A, gentlemen, is a vacuum."

*Senior*: "What's in it? Steam?" (*Fact.*)

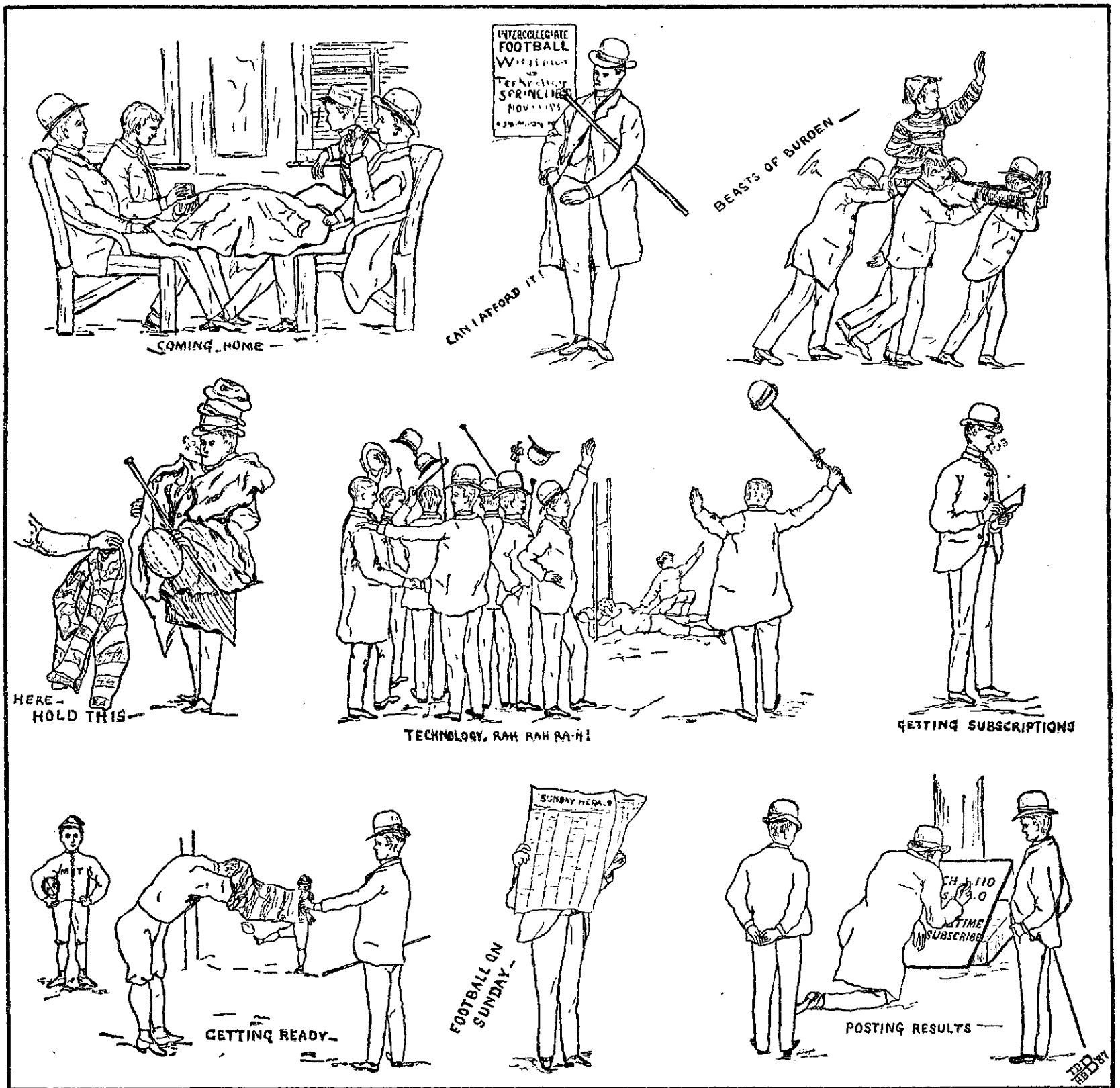
### THE '89 CLASS DIFFICULTY.

*First Fresh*: "Do you belong to the class society?"

*Second Fresh*: "There is no class society."

*Third Fresh*: "Is unconstitutionality illegal?"

*All*: "Let's go and ask President Walker."  
And they did!



FOOT-BALL, AS PLAYED BY THOSE NOT ON THE TEAM.



## Althausen.—A Romance.

(TRANSLATED FROM THE GERMAN.)

## CHAPTER I.

IN the autumn of the year 184—, one might have seen a young, vigorous-looking fellow trudging leisurely along the road from Marisfeld to Wichtelhausen, a knapsack on his back and an alpenstock in his hand.

It could be seen at a glance that he was no apprentice, traveling about in search of work, even if the trig little portfolio which he carried had not betrayed him to be an artist. The black, broad-brimmed hat, resting jauntily on one side, from underneath which fell long, blonde, curling locks, the full beard, the black velvet coat, half thrown back,—all these things indicated the artist.

The morning was warm, and the young man had stopped for a moment on the crest of a slight hill to rest, when the bells sounded forth the hour for church in Marisfeld, which was, perhaps, a quarter of a mile away. Leaning on his staff, he listened intently to the full, musical tones, which were borne across to him so distinctly. The tones were long since silent, and still he stood gazing dreamily out upon the mountain-sides. His thoughts went home, to the peaceful little village in the Taurus Mountains, to his mother and sisters; and it seemed almost as if a tear was about to come into his eye. But his gay, joyous spirit did not let sad thoughts oppress him long. With a bright laugh he took off his hat, and waved a greeting in the direction of home; and then grasping his trusty stick firmer, he started merrily on his way again.

The sun poured down with increasing heat upon the broad, monotonous way, on which the dust lay thick, and our traveler had for some time been looking about him, to right and left, in search of a more comfortable road. At his right branched off a path which promised no improvement, and also took him too far out of his way; so he kept on in the old track a while longer, until he finally came to a clear mountain-stream, on the banks of which the ruins of

an old bridge were yet to be seen. From this place there turned off a grassy pathway, which led into the valley, without any particular boundaries; and as it would probably afford many opportunities of enriching his portfolio, he sprang across the brook, stepping on the isolated stones which poked their heads above water here and there, letting him across dry-footed.

On the other side was the closely-mown meadow, with its soft, yielding grass, and the cooling shade of the thick alder-bushes.

"Now," he laughed to himself, "I have the pleasure of not knowing in the least whither I am come. There are none of those tiresome sign-posts here which tell one, hours before he cares to know, what's the name of the next place; and they always have the distance wrong into the bargain. I wonder how these people measure their hours here, anyhow—so uncommonly still here in this valley. On Sundays I suppose the peasants have nothing to do; and if they have to follow their ploughs or their carts all the week, they don't feel much like going out walking of a Sunday morning. So they sleep through the church-service, and then stretch their legs under the tavern-table after dinner. Tavern, by Jove! A glass of beer wouldn't taste so bad, after all this heat.—But in default of beer, I think that this clear water would perhaps quench one's thirst;" and throwing down his knapsack and hat, he bent down and drank to his heart's content. Somewhat refreshed by this, his glance became attracted by a curious, uncouth old willow-tree, which he rapidly sketched with expert hand; then starting up, he went on again, whither, he neither knew nor cared. It might have been a mile farther on that he had wandered thus, collecting, here a curious rock, and there a clump of alders or a gnarled oak branch, for his portfolio. The sun had risen higher and higher, and he perceived that he must hasten on, to get his midday meal in the next village, when suddenly he saw, not far before him, seated on a rock, where had once stood a picture of the Virgin Mary, a young peasant-girl, who was

gazing along the way he was just coming. Sheltered by the alder-bushes, he had seen her before she saw him. Following along the borders of the brook, however, he had scarcely come out from the bushes that had previously hidden him from her gaze, than she sprang up and advanced to meet him, with a little cry of joy.

Arnold, as the young artist was called, stopped short, overcome with surprise. His first glance showed him that the girl was extremely pretty, and was dressed in a peculiar, but very becoming, peasant costume. She was certainly not more than seventeen years old. With outstretched arms she flew to meet him!

A moment's consideration made Arnold perceive that she mistook him for another, and that this joyous greeting did not belong to him. The girl also recognized her mistake almost immediately, and shrunk back affrighted, turning first very pale, and then beginning to blush, until finally she said, timidly, "Take it not amiss, sir. I—I thought——"

"That it was your sweetheart, my dear, did you not?" laughed the young man; "and now you are annoyed that another's strange, indifferent face has come across your path. Do not be angry because I am not he."

"Ah! but how could I make such a mistake?" murmured the girl, in great embarrassment; "and how can I be angry with *you*? But if you only knew how very glad I was when I thought you were he!"

"Then he does not deserve that you should wait longer for him," said Arnold, to whom now for the first time the truly wonderful grace of the young peasant-girl appeared. "Were I in his place, you should not have waited a single minute in vain for me."

"How *can* you talk so!" said the girl, blushing modestly. "If he could have come he would certainly have been here long ago."

"Perhaps he is ill, or——or perhaps he is dead!" she added, slowly, with a little sob.

"And have you not heard from him for so long a time?" asked Arnold.

"Oh, not for very, very long," said she.

"Does he live, then, so very far from here?"

"Oh, very far—such a long way from here; in Bischofsroda," said the girl.

"Bischofsroda!" cried Arnold, excitedly; "why, I have lived there for four weeks, and know every soul in the village. What is his name, pray?"

"Heinrich—Heinrich Pruefer," said the girl, bashfully; "the mayor's son in Bischofsroda."

"Why, I have been very intimate with the mayor," said Arnold; "but his name is Bauerling, so far as I know, and I have not heard the name of Pruefer in the whole village."

"You may not have known *all* the people," said the girl; and through the sadness which lay over her lovely features there stole a mischievous little smile, which was so much more becoming to her than her previous melancholy.

"But one can come across the mountains from Bischofsroda in two hours, or at most in three;" answered Arnold.

"And yet he is not here," said the girl, with a deep sigh; "and he promised me so faithfully!"

"He will certainly come, then," Arnold said assuringly to her; "for if one had once promised you anything, he must have a heart of stone not to keep his word—and your Heinrich certainly hasn't that."

"No," she answered, loyally; "but now I cannot wait any longer for him, because if I am not at home this noon my father will scold."

"And where do you live?" queried the young man.

"O, just down there in the valley," said she, pointing and nodding her head in the direction. "Do you not hear the bells? Just now the church is out."\*

Arnold listened, and not far off he could hear the slow tolling of a bell. It did not sound out full and deep, but sharp and discordant; and as he looked in the direction of the sound, it seemed as if a dense mist hung over all that portion of the valley.

\* In Germany the church-bells ring at close of service, as well as at the beginning.—TRANS.

"Your bell is cracked," he said, laughingly; "it does not sound clear."

"Yes, I know it," answered the girl, calmly; "it does not, indeed, sound prettily, and we should ere this have had a new one cast, but money and time were never to be found; besides, there is no bell-foundry hereabout. But what does it matter! When it rings, we know at once what it means."

"And what is the name of your village?"

"Althausen," said she.

"What an odd name," he murmured; and then, turning to her, inquired, "Is there an inn there, where I can lodge?"

"O, yes, indeed; it is barely half a mile there by this footpath; perhaps not so far."

"Then I will go with you to the village, my dear, and if you have a good inn, will stay there to dinner; but before we go on," he said, as a bright thought struck him, "will you not sit down on that mossy bank, under the tree, for a moment?"

"And what am I to do there?"

"Only sit still," said the young artist, quickly throwing off his knapsack and taking out pencil and portfolio.

"But I ought to go home," she said, looking up at him with a puzzled expression.

"In five minutes I will be done. I should like very much to have a souvenir of you to carry away with me; against *that*, even your Heinrich could have no objections"

"A souvenir of *me*! You are surely joking."

"I am perfectly in earnest, and want to make a sketch of you as you are now."

"Are you, then, an artist?" she asked, her eyes brightening; and when he smiled assent, she clapped her hands gleefully and cried, "Oh, isn't that fine! Now you can restore the paintings in our church in Althausen, which look *so* faded and worn."

"Won't you tell me your name?" asked Arnold, who had already opened his portfolio, and was rapidly sketching the lovely features of the girl.

"Gertrud," she said simply.

"And what is your father?"

"He is the mayor of the village; and if you are an artist you must not go to the inn, but come home with me, and after dinner you can arrange everything with my father."

"About the pictures in the church?" said Arnold, roguishly.

"Of course!" said the girl, gravely; "and you must stay with us for a long, long time, until *our day* comes again, and the pictures are finished."

"We will discuss that later, Gertrud," said the young painter, industriously plying his pencil; "but will not Heinrich be angry if I sometimes, indeed, quite often, am with you and talk to you?"

"Heinrich?" said the girl. "Ah! he is not here."

"To-day, no; but very likely to-morrow he may be."

"No," said Gertrud, very calmly; "since he did not come by eleven o'clock, he will not now come until it is *our day* again."

"*Your day*? What do you mean by that?" said Arnold, looking up from his work.

The maiden looked at him gravely and earnestly for a moment. She did not answer his question, but turning her eyes up to the clouds, which were floating dreamily along high above them, she seemed filled with strong emotion; and when her glance again rested upon him, there was an expression of pain and sorrow there.

Gertrud was at this moment truly angelic in her beauty, and Arnold forgot everything else in the interest of catching her expression for his sketch. There remained to him not much time. The peasant-girl suddenly stood up, and throwing a kerchief over her head, to keep off the intense rays of the sun, she said to him, "I must go, the day is so short, and I know they are waiting for me at home." Arnold had, however, finished his sketch by this time, and, with a few bold strokes, giving the outlines of her dress, he said, holding the picture toward her, "Have I succeeded?"

"Why, that is me?" cried Gertrud, in astonishment.

"Of course; who else should it be, to be sure?" laughed Arnold.

"And you are going to keep the picture, and take it with you?" asked the girl timidly, almost nervously.

"By all means!" cried the young man; "and when I am far, far from here I shall often think of you."

"But will my father allow it?"

"Allow me to think of you? Can he prevent me?"

"N—no; but—he mightn't like you to carry the picture away with you, into the world."

"*He* cannot prevent me, my dear," said Arnold; "but would it be disagreeable to you to know that I possessed it?"

"To me? No," she answered, after a little pause; "if only—I must first ask my father, though."

"You are a foolish child," laughed Arnold; "even a princess would have nothing to say against an artist sketching her face. No harm comes to you from it. But now run on, you wild little thing, and I will go with you; or do you mean to leave me here without any dinner? Have you forgotten the pictures for the church?"

"Oh, to be sure, the pictures!" she said, stopping short and waiting for him.

Arnold quickly collected his sketches, and snatching up his portfolio, was soon walking along by her side, toward the village.

(TO BE CONTINUED.)

### Isle Royale.

IN Lake Superior there is an island off the shores of Michigan, fifty leagues in circuit, which is extremely interesting to the student, on account of its singularity and beauty of form, but more especially because of the evidences of very primitive attempts to extract mineral from the rocks.

The outline of the island is indented with deep bays, and on the north by long spits of rock; while at its southwestern end it shelves off far into the lake, presenting slightly-inclined

beds of red sandstone, tabular sheets of which for miles from the coast are barely covered with water. All this is however different on that portion of the coast where the rocks are of igneous origin. Natural harbors are numerous,—among them Rock Harbor, the largest and most beautiful haven on Lake Superior, which has been compared to the Bay of Naples, with Procida, Capri, and Ischia at its entrance; but no modern volcano completes the background of the picture, notwithstanding the traditions of there having been earthquakes and eruptions in pre-historic times on Isle Royale. Igneous rocks constitute more than four-fifths of the island, and there must at some time have been greater eruptions there than ever took place in Italy; but this was at a period anterior to the existence of human beings on the globe.

Bold cliffs of columnar trap and castellated rocks, with mural escarpments, sternly present themselves to the surf, and defy the storms. The waters of the lake are deep close to the very shores, and the largest ship may in many places lie as close to the rocks as at an artificial pier. The color of the water, affected by the hue of the sky, and holding no sediment to dim its transparency, presents deeper tints than are seen elsewhere on the lakes—deep tints of blue, green, and red prevailing, according to the color of the sky and the clouds. Added to the fantastic irregularity of the coast and its castle-like islands, the abrupt elevation of the hills inland rising like almost perpendicular walls from the shores of the numerous beautiful lakes which are scattered through the interior of the island, and corresponding with the lines of the mountain upheaval, are to be seen, occasionally, rude crags detached from the main body of the mountains; and in one place two lofty twin towers, standing on the hillside, rise perpendicularly, like huge chimneys, to an elevation of seventy feet, while they are surrounded by the deep green foliage of the "forest primeval."

The most remarkable feature about the island is, perhaps, the ancient pits, of which there are

more on Isle Royale than were ever found in all other portions of the copper district combined.

All over the island the evidences of the copper veins, having been worked by a pre-historic race, are found in abundance, not only in the pits themselves, but in the shape of vast numbers of stone hammers, and an occasional copper implement. These are the only relics the ancient miner left behind him; neither the vestige of a habitation, a grave, or a skeleton, has ever been found. Among the Indians who have inhabited this region from the advent of the white man in the seventeenth century, neither legend nor tradition exists to give the faintest clue to the identity of these ancient miners. At the Minong Mine, McCargoe's cove, there is an aggregation of these ancient pits extending over a length of nearly two miles, and covering an average width of four hundred feet; the successive pits indicating the mining-out of the belt, which is solid rock, to an average depth of at least twenty feet. Scattered all over the intervening ground are thousands of battered stone hammers, many of which have been grooved by manual attrition or impact, in order to fit them for the withe handles with which they were undoubtedly supplied. The process of mining seems to have been to heat the embedding rocks by building fires on the outcrops of the veins or belts, and then partially to disintegrate the rocks by the contraction produced by the sudden throwing on of water, completing the removal of the native masses by knocking off the adhering particles of rock with the stone hammers (a modified form of this treatment has been experimented with of late years at some of the mines on the lake). This is proved by the presence, in all of the ancient pits, of large quantities of charred fire-brands and numberless stone hammers, the latter showing unmistakable evidence of long use.

That generation of miners has disappeared; but whence they came and whither they went, is a secret which will long puzzle men. In silence and solitude the isle probably slumbered until some time in the seventeenth century, when it was explored and mentioned by the

early Jesuit missionaries; and again, in 1846, it presented a scene of considerable activity, since which time affairs have not prospered so well. Opinions are current, however, that in time, Isle Royale will hold up its head among the proudest of copper-producing regions, for it seems possible, if not probable, that the same belt of conglomerate rock which is worked by the Calumet and Hecla mines, outcrops at Isle Royale.

#### Noticeable Articles.

The *Contemporary* for November opens with an interesting article, in excellent English, on the present aspect of French politics, by Jules Simon, himself a prominent French politician. "France as a whole," he says, "has a perfect dread of the red flag, and of everything which reminds her of 1793." And, again, "She has not forgotten Sedan; the Bonapartist party is crushed for the moment, and it is doubtful if it can ever rise again." As a result of the recent election, "all our Paris deputies will be either Communists or Radicals. It is not a pleasant prospect," but "Paris is no longer France; it is only Paris; henceforth a riot in Paris does not mean a revolution in France. Even a mere Parisian riot has become, if not impossible, at least in the highest degree unlikely." One gathers from the paper that France is making real, if slow, progress toward becoming a firmly established republic; and yet one dares not prophesy about France.

From French politics the reader passes to "Recent Observations on Ants, Bees, and Wasps," by Sir John Lubbock, who knows their ways so well — and very surprising ways they are. The ways of Servians and Bulgarians just now are very like those of angry wasps; and whoever wants to understand the position of affairs in Eastern Europe, will turn to a paper on the "Position of Greece in the present Crisis," by a Greek statesman, and read it in connection with one in the *Nineteenth Century* on the "Coup d'Etat in Eastern Roumelia."

The most amusing paper in the *Fortnightly* is "A Retrospect," by Mrs. Lynn Linton, the novelist, a collection of her own reminiscences. As a child she lived in Rochester, in the very house, on Gad's Hill, which Dickens afterward occupied. She knew the original of the elder Mr. Weller. "Old Mr. Weller was a real person, and we knew him. He was 'Old

Chumley' in the flesh, and drove the stage daily from Rochester to London, and back again." Some of her later recollections are interesting. Here is a picture of two noted personages — the brave, rough King, who did so much for the emancipation of his native Italy, and the contemptible pinch-beck French Emperor, "the adventurer," to use the words of Emil de Lavileye, "who on a dark winter's night, armed only with the power borrowed from the memory of an odious despot, drove out the people's representatives, shot those who resisted, stifled liberty, and re-instated absolute and autocratic government."

"A murderer and a villain;  
A slave that is not twentieth part the tithe  
Of your precedent lord; a vice of king's;  
A cutpurse of the Empire and the Rule,  
That from a shelf the precious diadem stole,  
And put it in his pocket."

"I was at the opera," says Mrs. Linton, "when Vittorio Emanuele was in Paris, and he and the Emperor came there to show themselves. The King of Italy came boldly to the front of the box, where he stood squarely facing the house and looking about him. The Emperor slid in with a creeping, cat-like step and slunk behind the curtain, sitting down as if to hide himself. The bluff, soldierly bearing of the Piedmontese, his frank, bold eyes and brave, if less than comely face, contrasted powerfully with the strange self-effacement, pallied countenance and fishy eyes of the Emperor. Once more there was that strange difference between reality and seeming, which made Bonapartism show itself for what it was — a mere historical parenthesis, bracketed in lines of blood; a temple of Juggernaut, founded on craft, cruelty, and dishonor; a ghastly idol, doomed by its inherent worthlessness to rot into the mud of which it had been made from the beginning."

[Owing, I fear it must be confessed, to the illegibility of my hastily penciled manuscript, there were some odd misprints in the last number; "compounding" for "confounding," "theories" for "studies," "engineer" for "enquirer." Coleridge's distinction should read, "the antithesis to poetry was not *prose* but science."]

W. P. A.

THE winter in-door athletic games will take place in the gymnasium, on Saturday, December 19th. They promise to be very successful.

THE quinquennial dinner of the class of '81 will take place at the Vendome, on Wednesday, Dec. 30, 1885, at six o'clock.

## COMMUNICATIONS.

*The editors do not hold themselves responsible for opinions expressed by correspondents.*

TO THE EDITOR OF THE TECH: Will you allow me a short space in your valuable paper to show up a gross injustice that has just been perpetrated on the unsuspecting public? Some weeks ago the Labs., '87, agreed to play a game of ball with Labs., '86. Since then the public have been on the *qui vive*, waiting for that game. The general talk after the meetings of the Faculty and in the corridors of the Institute, has been concerning the event. But, alas! We are not to play; '87 has "crawled" very effectively, and have delayed the game from day to day, until they have shown that they are afraid to play.

To show the injustice of their position, it is only necessary to show the expense account of the '86 nine, which we expected to pay after receiving our share of the gate receipts. The following are some of the items: —

Disguise for Buffinton, including whisks	\$20.13
Puff in Boston <i>Herald</i> , paid J. C. D.	.50
Buffinton's breakage bill in the chemical laboratory, for two weeks	67.42
Thirteen bats broken in practice	6.50
Ten balls lost in practice	15.00

There are other expenses too trifling to mention.

What we want now, is the championship of the Institute. We think that we deserve it, after having been trifled with to the extent that I have shown. We are willing to leave the question in the hands of any three men chosen from the '86 nine, provided they will not allow the matter to get into the hands of the sporting editor of the Boston *Herald*. If he should attempt, to support our case, we will give it up as lost.

As we have won the championship of the Institute, we hereby challenge any nine from the University of Pennsylvania to play us, to-morrow afternoon on the Union grounds. If they do not appear, we shall claim the championship of the college world.

This communication will probably bring forth canards and lies from the members of '87 nine. I, hope, Mr. Editor, that you will not notice any such, for, as I have stated the matter fairly, I do not see why anything more should be said on the subject.

Dec. 16, 1885.

PHENOMENAL.



## TECHNICAL.

Some tests of the locomotives on a New York Elevated Railroad made by Mr. Angus Sinclair, show that the average horse-power exerted was 77.8, and the average coal consumption 5.8 lbs., per horse-power per hour.

Extensive works are being erected at Lake Owens, Nevada, for the extraction of carbonate of soda, by evaporation, from the waters of the lake. The enterprise is under the superintendence of L. F. J. Wrinkle, who was the projector of the scheme. — *Virginia City Chronicle*.

This is L. F. J. Wrinkle, of the class of '70, M. I. T.—EDS. TECH.

The Mobile and Ohio Railroad recently changed its gauge from 5 feet to the standard 4 feet 8½ inches. The line is 470 miles long, and the time required for the change was one day, only one through passenger train being entirely suspended.

The cylinder-head of the large 450 horse-power engine which drives the cotton-mill at Berkeley, R. I., was recently blown out with such force that it, together with the piston, burst through the end wall of the engine-room, which is of brick, and three feet in thickness. After passing through this, it continued across the road a distance of several feet. — *Boston Journal of Commerce*.

A new process known as Shawcross' patent sensitized paper, the lines of which are black and the background white, has recently been introduced in England, in which the manipulation is exactly similar to the ferro-prussiate process. Mr. Shawcross' sensitized paper is originally of a bright yellow color, and possesses the following properties: If immersed in water the paper rapidly turns black, or if first exposed to direct sunlight it is bleached, and assumes a pure white face, after which water has no effect upon it. From a statement of these two properties the method of manipulation in order to produce a copy of a tracing can readily be conjectured. — *Railroad Gazette*.



Bryant P. Tilden, '68, Chief Engineer, Jamestown and Northern Railroad, Carrington, D. T.

Addison Connor, '71, in Public Works Department, New York, N. Y.

Charles F. Stone, '71, recently elected Mayor of Waltham, Mass.

Henry S. Phillips, '73, Supt. Worcester Division of Fitchburg Railroad, Worcester, Mass.

Francis T. Sargent, '75, President of Poulteney Slate Works, 515 Sixth Avenue, New York, N. Y.

Walter B. Barrows, '76, Curator of Museum, Wesleyan University, Middletown, Conn.

Walter S. Allen, '79, Secretary State Gas Commission, 13 Beacon Street, Boston, Mass.

Geo. W. Hamilton, '80, Inspector Charles River and Sea Wall Park Dep't, 350 Charles Street, Boston, Mass.

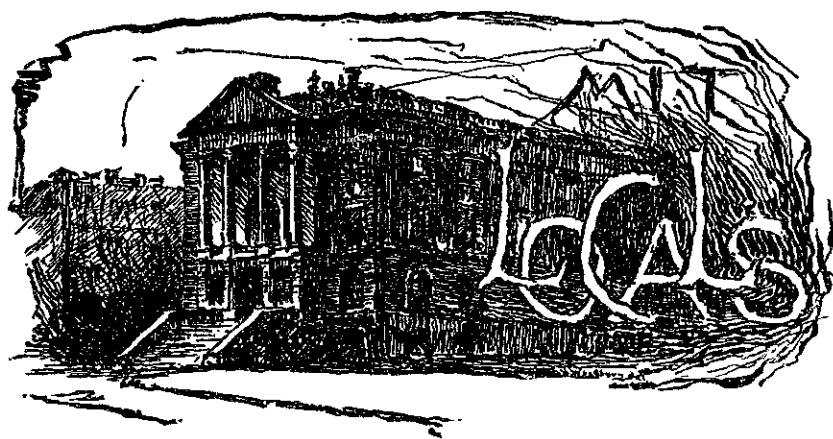
Frank G. Darlington, '81, Superintendent of the Cincinnati and Muskingum Valley Division of P. C. and St. L. Railroad.

George H. Gustin, '83, Mining Engineer Atrato Mining and Developing Co., Quibdo, U. S. of Columbia, S. A.

Charles C. Bothfield, '84, Assistant Engineer Keystone Bridge Co., Pittsburg, Pa.

Geo. F. Lull, '84, with Penobscot Chemical Fiber Co., West Great Works, Maine.

Theo. W. Robinson, '84, chemist, Joliet Steel Works, Joliet, Illinois.



CHRISTMAS.

Now the Senior thinketh his thesis up, till his head is in a whirl;  
 The Junior doctoreth his "mustache," and goeth to see his girl;  
 The Sophie starts on a three-days' bust (while his father foots the bill);  
 And the Freshman hangeth his stocking up for the Faculty to fill!

"*Technique*" is announced for this week. Twelve hundred copies will be printed for the first edition.

At a regular meeting of the 2 G Wednesday Dec. 9th, Messrs. Nickels, Brace, and Mossman, '87, and Warren, '88, were initiated.

"Friction and lost work," remarked the senior mechanical, as he rubbed out two thirds of his nearly completed drawing.

We acknowledge the receipt of a song, "'Twas Ere the Mellow Autumn Moon;" words by F. Manton Wakefield, '87, and music by F. F. Bulard, formerly '87.

There is talk of putting the baseball men into training immediately. The services of Mr. Currier, formerly of '87, as manager will be greatly missed.

The first of the Fraternity dances, which was held in the gym', on Saturday, Dec. 12th, was a pronounced success—"just enough to make it pleasant" being there.

Some Freshmen recently performed an experiment with ice and the thermometer so successfully, that Prof. Nichols dismissed them, on account of the cold room.

The Glee Club are practicing steadily. It is to be hoped that the sibilant will not be as *pro-*

*nounced* in their delivery as it is *prominent* in the names of their officers.

Hade is a geological term expressing the amount of deviation of a dike from the direction of the assumed locality of Hades. At least, that's what the miners tell us.

The title of the chemists' society, recently formed, is the  $K_2S$ , *not* the K.S., as erroneously printed in our last number. The society meets upon that Friday nearest the fifteenth of each month.

'86 had a very enjoyable meeting at Young's, Friday, Dec. 4th. It is found that the meetings have a fuller attendance, and more enthusiasm is shown, when at Young's, than in Room 15, Rogers.

An additional study—steam engines and boilers—to extend through the whole of the second term of the fourth year, has been placed in the course in mining. It will probably, however, not be begun until 1887.

The Hammer and Tongs Society have decided to substitute a theater party in place of their next dinner at Young's, the attraction (or distraction?) being Robson and Crane's "Comedy of Errors."

It is rumored that a certain prominent member of the Faculty was recently seen in a bathing-costume going through a series of gyrations and contortions, while a well-known instructor was shooting him with the instantaneous process.

It was rumored that a certain member of '87 was tired after the last meeting of the Society of '87, and some zealous classmates immediately roused two doctors in the neighborhood. The latter were somewhat perplexed at being turned away without so much as a chance to collect any fees.

The four architects who competed in the drawings for a house, recently submitted designs for a fountain to be built in the Public Garden, and, with a remarkable thoughtfulness for their mutual feelings, received mention in exactly the reverse order in the latter that they did in the former, Mr. Schmid getting first this time.

The fourth year miners and chemists have been having a course of lectures on lead-smelting, by Mr. O. Hoffman, the distinguished metallurgist. These lectures are followed by a course, by Mr. H. M. Howe, on copper.

In some colleges the police have begun searching the students' rooms for signs. This is inserted for the benefit of certain Techs who may be able to appreciate an early warning. All signs employed for decorative purposes should be capable of speedy removal, and of being conveniently hung out of the window attached to the blind-fastenings.

At a meeting of the Football Association, Dec. 5th, Messrs. Fletcher and Bowles, '87, were chosen to represent the Institute in the Football Convention next September, and the Executive Committee was instructed to select a team and obtain a training-table before the opening of the next Fall term. The report of the treasurer showed a debt of about \$65, which it is hoped will soon be paid by subscriptions.

Over a hundred members of '89 met in Room 15, a week ago last Saturday, to receive thereport of the committee on a constitution for the proposed society of '89. The constitution was accepted almost as submitted, and the meeting proceeded to elect the officers therein required: as President, F. L. Dame; Vice-President, H. D. Smith; Secretary, G. M. Basford; Treasurer, E. L. Brown; Executive Committee, the President and Vice-President, ex-officio, and Messrs. Mildram, Lewis, and Hutchins; Membership Committee; the three last named, and Mr. Parks. The meeting then adjourned to October, 1886. It is alleged that the meeting was illegal, and further action is expected.

The Society of '88 held its second regular meeting last Friday evening at Parker's. Declamations were given by Mr. J. C. Runkle, Mr. Benj. C. Lockett, and Mr. A. T. Bradlee; violin solos by Mr. C. H. Cromwell; a flute solo by Mr. E. H. Graves; and singing by a sextette, Mr. Ralph Fay accompanying them on the piano. Mr. Fuller's tenor solo was much applauded. The feature of the evening was Mr.

Fukuzawa's original remarks on Japan and its language, which contained many good points. His recitation of a Chinese poem was much applauded, and at request he repeated another. After the entertainment was concluded the members partook of a light supper, and then amused themselves for the rest of the evening singing and otherwise. The meeting broke up shortly after eleven.

The Society of '87 held its regular monthly meeting at the Parker House on Friday, Dec. 4th. Thirty-nine were present, including Mr. Haskell, a former president of the class. The proof print of a certificate of membership was shown and discussed; Mr. Brace gave an acceptable report of the Pin Committee; arrangements were made for collecting and preserving copies of the examination papers; and an entertainment committee was appointed. The debate on "Marriage or Suicide" was spirited and interesting, though, from the first, it was evident that the "Marriage" faction had things all their own way. Before finally separating, the majority of the members adjourned to Young's Court, and gave '86 some hearty cheers.

Last evening, the first meeting and dinner of the graduates of the Massachusetts Institute of Technology took place at the Windsor Hotel. This college, located at Boston, is the leading scientific college of the country. The following were present: Charles A. Judkins, W. P. G. Hayward, Randall Whittier, George S. Rice, E. W. Rollins, of '71; W. L. R. Hallett, '72; H. L. J. Warren, '75; Theodore E. Schwartz, '76; G. H. Hewitt, '77; F. D. Chase, John Duff, E. R. Warren, John H. Allen, '81; H. M. Neff, '83; W. H. Bunce and P. S. Morse, '84. H. L. J. Warren was appointed president for the occasion. A permanent organization was effected, to embrace the students of the Institute resident west of the Missouri. The next annual meeting and dinner is to take place in Denver, a year from last evening. The affair was in every way a most enjoyable and complete success, and the organization promises to be one of the most promising college institutions of the Rocky Mountains region.—*Denver Tribune*.

## THE COLLEGE WORLD.

HARVARD. — The scientific school pamphlet shows the presence of twenty-two students this year — a loss of six over last year. One man is pursuing the course in civil engineering, two chemistry, and seven natural history. — Prof. Asa Gray, the distinguished botanist, was presented with a memorial, by his admirers, on the occasion of his seventy-fifth birthday. — The expense of conducting morning prayers is said to amount to \$5,000 per annum. — Only about 38 per cent of the Harvard Freshmen room in the college buildings. — Prof. Agassiz, Curator of the Museum of Comparative Zoölogy, is obliged to resign his position, on account of ill-health. He will seek rest and restoration by a visit to Europe.

YALE. — The annual catalogue is out. The total number of students in the university is 1,076; and the number of professors and instructors is 114. — Yale now has representatives from thirty-five States, four Territories, and eleven foreign countries. It is reported that the Yale alumni are raising money for a new gymnasium, to cost \$100,000.

PRINCETON. — The Princeton authorities have decided to make their college a university within five years. — A plan of forming a conference committee, like that of Harvard, for representation of the students in college government, is undergoing consideration at Princeton. The *Princetonian* offers \$25 for the best "distinctly Princeton" college song.

IN GENERAL. — Harvard is still the largest college in the country; Oberlin comes second, and Columbia has fallen to third place; Michigan is fourth, and Yale fifth. — Cornell University has recently received and accepted \$60,000 to endow a professorship of ethics and moral philosophy. The gift is from the Hon. Henry W. Sage, who founded the Sage Female College, connected with Cornell University. — The Japanese Government has recently sent a pair of bronze vases, handsomely ornamented with inlaid decorations in gold and silver, to Vassar College.



'Twas not amiss.

'Twas not amiss, we thought that day,  
To listen to her laughter gay,  
While thro' the trees the breezes sighed,  
While ebb'd away the summer tide,  
And life seemed like a roundelay.

We said what all the lovers say;  
*Vraiment, entre nous*, 'twas but a play,  
And yet I fancied in my pride  
'Twas not amiss.

She said our love she'd ne'er betray, —  
" 'Twas like a bright life-giving ray,"  
And all that sort of thing beside,  
Until she saw close by her side  
*Son mari*. Then she strolled away, —  
'Twas not a Miss!!

— Williams Fortnight.

It's not the cream that ought to be whipped,  
but the milkman. — *Ex.*

An accessory before the act — The orchestra. — *Ex.*

HOW COULD YOU FAIL?

I sing a maiden fair,  
I sing an easy-chair,  
With carvings quaint and rare,  
And arms.  
Ah! foolish easy-chair,  
When you had Kitty there,  
How could you fail to dare  
To use your arms?

— Life.

LA FRANCAIS.

She was toying with French as a pastime,  
Just learning pronouncing, you know,  
When unnoticed I stole close behind her,  
And heard as she murmured low,  
"Pas, de, lieux, on, que nous."

Then out through the hallway I darted,  
My rapturè was turned into woe,  
For 'tis rough when a greeting you're seeking,  
To be answered in mutterings low,  
"Paddle your own canoe!"

— Yale Record.



THINGS ONE WOULD RATHER HAVE LEFT UNSAID.

SHE : " IF I COULD ONLY GET MY COURAGE UP, I WOULD GIVE SOME PIANO RECITALS, THIS WINTER."

HE : " OH, IT ISN'T COURAGE YOU NEED! "

A delicate little girl just returned from a farm, where she had been sent to spend the summer for her health, said : —

" The pump out there gives milk."

" It does?" asked her mother.

" Yes; I saw the farmer pump into a can, and I looked in it, and saw nothing but milk." — *Puck.*

PROFESSIONAL COURTESY.— " You don't like that tea!" exclaimed the wholesale merchant.

" No, I don't. My wife said it was the worst tea she ever steeped," replied the retailer.

" What! Do you mean to say that you used that tea in your family?"

" Why, of course I did."

" I beg your pardon,—indeed I do. That is a terrible mistake. I never supposed you intended to use it yourself. I thought you were going to sell it to your customers." — *Ex.*

" Why didn't you laugh at my story? Don't you think it is very funny?"

" Yes."

" Well, you didn't look as if you did."

" Didn't, eh? Well, you ought to have seen me the first time I heard that story, twenty years ago. I nearly killed myself laughing." — *Puck.*

" I'm sorry," observed the parishioner, " that I can't pay my pew-rent this quarter.

" I'm very sorry, too, Mr. Jones," returned the clergyman. " I presume you lost your money gambling in stocks?"

" No; I can't say that I did."

" Then in speculating in oil?"

" No; to tell the truth, I did not. I attended your church-fair the other evening, and got roped into a lottery."

" Oh!" — *Puck.*



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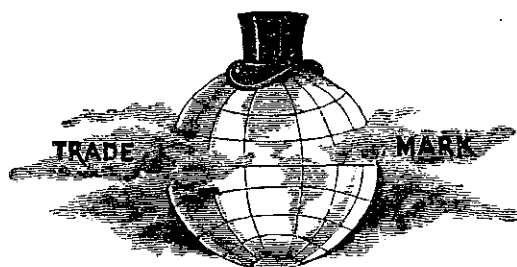
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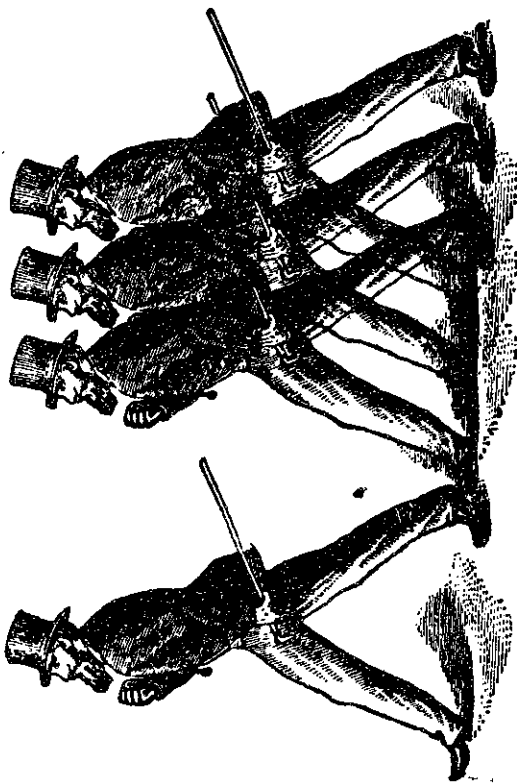
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(LIMITED.)

"La Belle Russe" is being presented at the Bijou Theatre this week. The present company was particularly successful in producing the play in New York, and the author personally superintends its production here.

The Boston Theatre stage is occupied this week by Robson and Crane. They produce Shakespeare's "Comedy of Errors," in which play these comedians have had great success, both in New York and Chicago. Special attention has been paid to the stage settings, which are quite elaborate.

"The Mikado" continues to attract generous-sized audiences at the Hollis Street Theatre. Souvenir programs are in preparation for the fiftieth performance.

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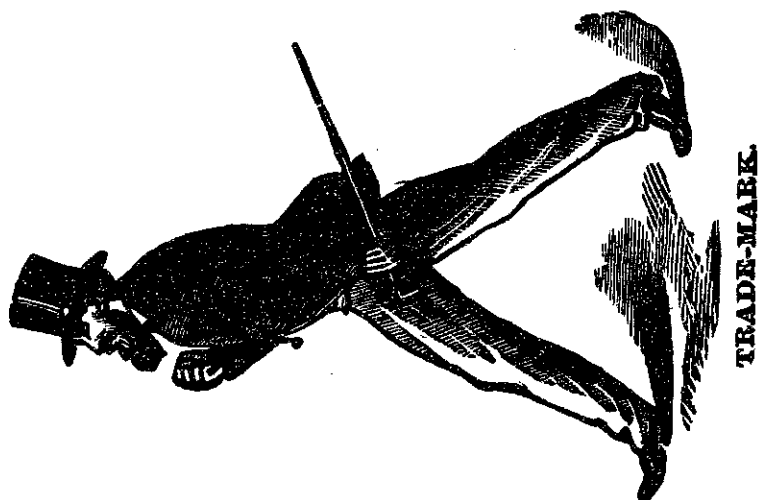
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